

The features of heterogeneous equilibria in gas-liquid solutions of carbon dioxide in normal paraffins

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Abstract

Results of an NMR experimental study on the structure of CO₂ solutions in n-paraffins below their stratification temperatures are reported. Specific features displayed by temperature dependences of high-resolution ¹H, ¹³C, and ¹⁷O NMR spectra; the self-diffusion coefficients of molecules; and spin-lattice relaxation times are explained by the occurrence of heterogeneous equilibria in solutions when one of the components solidifies, producing a permeable or impermeable matrix, and the other remains in the liquid state in the form of inclusions in this matrix.
